

224. A method of prophylactically treating a lipopolysaccharide-induced host inflammatory response in a mammal, the method comprising directly exposing epithelial cells of the mammal to an isolated protein comprising an amino acid sequence selected from the group of amino acid sequences identified as SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, and SEQ ID NO:7.

225. The method of claim 224, wherein the said amino acid sequence is the amino acid sequences identified as SEQ ID NO:4

226. A method of enhancing expression of defensins in a mammal in need thereof, the method comprising directly exposing epithelial cells of the mammal to an isolated protein comprising an amino acid sequence selected from the group of amino acid sequences identified as SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, and SEQ ID NO:7.

227. The method of claim 226, wherein the said amino acid sequence is the amino acid sequences identified as SEQ ID NO:4

REMARKS

Claims 159 to 227 are pending in the application.

Claims 177, 178, 181 to 186, 190, 191 and 195 are non-elected.

In response to the restriction requirement, Applicant hereby elects, with traverse, Group I claims 159 to 176, 179, 180, 187 to 189, and 192 to 194, drawn to methods of stimulating defensin expression, ameliorating the symptoms of sepsis, prophylactically treating a lipopolysaccharide-induced inflammatory response, and enhancing defensin expression.

Election of species

Species are elected as follows:

HN P1

SEQ ID NO:4

All Group I claims and all newly added claims are readable on both elected species.

Also submitted herewith for consideration of the examiner are new claims 196 to 227. All of these claims depend from an elected claim, except for claims 222 to 227. Claims 222, 224 and 226 are directed to a method of stimulating the expression of a defensin in a mammal, a method of prophylactically treating a lipopolysaccharide-induced host inflammatory response in a mammal, and a method of enhancing expression of defensins in a mammal, respectively. These new independent claims thus fall into the same category as elected Group I claims. Claims 223, 225 and 227 depend from claims 222, 224 and 226, respectively.

In response to the "NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES", the Sequence Listing has been amended to include polypeptide sequences of claim 195, and claim 195 has been amended to include the sequence identifiers of the Sequence Listing.

The polypeptides added to the Sequence Listing were described in the application as filed, for example, in the fifth paragraph on page 12 of the description, and claim 139 of international patent application No. PCT/CA 99/00482, of which this United States application is a continuation application. As such, no new matter is being added by the amendments to the Sequence Listing.

An electronic version of the enclosed printed paper copy of the Sequence Listing is included on the accompanying diskette. The content of the Sequence Listing recorded on the enclosed diskette is identical to the enclosed printed Sequence Listing.

All of the amendments made herein are based on the application as filed, and Applicant believes no new matter is added thereby.

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Yours very truly,



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160. (Amended) The method of claim 159, wherein said administering step comprises [includes] directly exposing epithelial cells of the mammal to said compound.

161. (Amended) The method of claim 160, comprising exposing the tongue [and/or the gastrointestinal tract, optionally including the small intestine,] of a said mammal to an effective amount of a said compound.

164. (Amended) A method of ameliorating the symptoms of sepsis comprising [administering to a mammal in need thereof an effective amount of a soluble protein so as to] directly exposing [expose] epithelial cells of the mammal to [the protein, the] a protein comprising [having] an amino acid sequence which is at least about 63% conserved in relation to the amino acid sequence identified as SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, or SEQ ID NO:7 and having the ability to induce expression of defensins in epithelial cells.

166. (Amended) A method of prophylactically treating a lipopolysaccharide-induced host inflammatory response in a mammal, which method comprises administering a therapeutically effective amount of an effective amount of a protein to the mammal so as to directly expose epithelial cells of the mammal to the protein, the protein having an amino acid sequence which is at least about 63% conserved in relation to the amino acid sequence identified as SEQ ID NO:4 or identified as SEQ ID NO:5 or identified as SEQ ID NO:6 or identified as SEQ ID NO:7 and having the ability to enhance expression of one or more defensins in bovine epithelial cells.

168. (Amended) A method of enhancing expression of defensins in a mammal in need thereof, by administering an effective amount of a soluble protein to the mammal, the protein having an amino acid sequence which is at least about 63% conserved in relation to the amino acid sequence identified as SEQ ID NO:4 or identified as SEQ ID NO:5 or identified as SEQ ID NO:6 or identified as SEQ ID NO:7 and having the ability enhance expression of defensins in mammalian epithelial cells.

169. (Amended) The method of claim 168 wherein the protein has an amino acid sequence which is at least about 68% or about 71% or about 73% or about 78% or about 83% or about 88% or about 93% or about 98% conserved in relation to the amino acid sequence identified as [SEQ ID NO:5] SEQ ID NO:4.

194. (Amended) The method of [any of claims] claim 159, wherein the mammal is a human and the at least one defensin [defensin(s)] is a human defensin [selected from the group consisting of RtNP1, RtNP2, RtNP3, RtNP4, HNP1, HNP2, and HNP3 and any combination thereof, or the group consisting of HNP1, HNP2, and HNP3].

195. (Amended) A method of directly activating B cells using a soluble polypeptide having the amino acid sequence selected from the group consisting of leu-leu-leu-leu-leu-leu-pro-ser (SEQ ID NO:9); leu-leu-leu-leu-leu-pro-leu (SEQ ID NO:10); and leu-leu-leu-leu-leu-val-his (SEQ ID NO:11), and which is specifically recognized by the monoclonal antibody 3C10 and which activates B cells, by administering to a mammal in need thereof an effective amount of said polypeptide.